

mothers remain foodless during the period of maternal care as very careful observations have failed to reveal any punctures in the twig in front of them.

Maternal care in this species can be attributed to the fact that eggs of membracids are frequently parasitised by the hymenopterous parasites. In order to protect the eggs from parasitisation by these insects the female sits over the eggs. In this context the observation that the most of the eggs that remain uncovered are parasitised by the hymenopterous parasite is revealing. So it can be safely concluded that this instinctive type of maternal care exhibited by *O. tarandus* pertains to the pro-

tection of its eggs from the attack of its enemies.

Murtfeldt (1887)¹ observed the female of *Eutilia sinuata* Fabr., a membracid, hovering over a cluster of her eggs laid on the leaf of Ragweeds (*Ambrosia*). He found the parent insect remaining with her eggs and young leafhoppers. When the female was touched with finger even with all the shaking and brushing the mother was not dislodged.

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¹ MURTFELDT, MARY E. (1887): Traces of maternal affection in *Eutilia sinuata* Fabr. *Ent. Amer.* 3: 177-178.

23. *PARNARA* BUTTERFLY FROM PATNA: A CORRECTION

In our faunal list of butterflies from Patna (Bihar) published in this *Journal* (Varshney and Nandi 1977), the occurrence of *Parnara guttatus bada* (Moore) has been shown in the Family Hesperidae. According to Evans (1949) the species *guttatus* is now almost restricted to China, Japan, Sumatra etc. eastern countries. Only one subspecies *guttatus mangala* Moore is found in India, which too has limited distribution — Kashmir to Kumaun, Sikkim, Assam.

The subspecies *bada* Moore, which is common in peninsular India, has been placed

under the species *naso* Fabricius. The type material of *bada* came from Ceylon (Sri Lanka) and it has been collected all over India, except western parts, *vide* Evans (1949). Thus, the Patna material should rightly be named as *Parnara naso bada* (Moore).

Evans (l. c.) has pointed out that the figures given of *guttatus* in Seitz (1927) also belong to *naso bada*.

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24. OCCURRENCE OF *ARTEMIA SALINA* (CRUSTACEA: PHYLLOPODA) IN DIDWANA LAKE, RAJASTHAN

Recently, the study of *Artemia* has gained importance because of its utility as food in aquaculture. *Artemia* nauplii constitute the best available source of live food for the young stages of most cultured species of larval fishes and decapods (Bardach 1972, Godwin 1976). There has been a number of records of *Artemia* from salt pans near sea coast in India. But barring Baid's (1958) record of *Artemia salina* from Sambhar lake in Rajasthan, there is no record of its occurrence from other inland salt lakes. During the course of a limnological study of two major salt lakes of the country, namely Sambhar and Didwana (Rajasthan), we found *A. salina* in Didwana lake. It is the first record of its occurrence from this lake. But, surprisingly, *A. salina* was not found in Sambhar lake by us.

The study of Didwana lake was conducted from March to May 1979. Water samples were collected in the first week of each month and analysed for chemical factors such as pH, dissolved oxygen, alkalinity and salinity. pH was measured by a battery-operated pH meter, dissolved oxygen by Miller's method (as suggested by Walker *et al.* 1970), alkalinity and salinity after APHA (1975). For collection of zooplankton, 50 litres of water were filtered through a bolting silk net (0.3 mm mesh size) and zooplankton thus collected preserved in 4% formalin.

The data of the physico-chemical factors are given in Table 1. During the course of the study, with the advance of summer, salinity and total alkalinity tremendously varied from one month to another. Dissolved oxygen was

TABLE 1
PHYSICO-CHEMICAL FACTORS OF DIDWANA LAKE DURING MARCH-MAY 1979

	March	April	May
Air temperature (°C)	24.5	35.0	30.0
Water temperature (°C)	23.0	26.5	26.5
pH	8.2	8.5	9.5
Dissolved oxygen (ml/L)	2.24	1.45	0.6
Total alkalinity (ppm)	1738	2920	3700
Carbonate alkalinity (ppm)	870	1240	2000
Bicarbonate alkalinity (ppm)	868	1680	1700
Salinity (‰)	108.0	170.0	268.0